

AMENDMENT TO THE SPECIFICATION

Please replace the paragraph appearing on page 9, lines 18-28 with the following amended paragraph:

Referring now to FIG. 6-1, a flow chart representing a method determining the degree to which the shape of an electrically conductive surface varies from the nominal shape, is shown. At step 600, a first surface (such as ~~120220~~ of ~~FIG. 1~~FIG. 2) is held at a known distance from a second surface (such as ~~130230~~) having a known shape. At step 610, the force exerted between the first surface (such as ~~120220~~) and the second surface (such as ~~130230~~) is measured. At step 620, the measured force value is compared to a nominal force that would be expected to be exerted between the first and the second surfaces as a result of the Casimir force if the shape of the first surface were equivalent to the nominal shape. The method represented by ~~FIG. 6~~FIG. 6-1 can be employed with surfaces of substantially any geometry.

Please replace the paragraph appearing on page 10, lines 1-10 with the following amended paragraph:

In a particularly useful embodiment, the method of ~~FIG. 6~~FIG. 6-1 can be employed to determine defects in flat surfaces. The force between a flat surface and a reference surface with a known shape held at a first separation distance from the flat surface is measured to obtain a nominal force value. The flat surface is then replaced with a test surface whose flatness has to be determined. The test surface is held at the first separation distance from the reference surface. The force between the test surface and the reference surface is measured to obtain an exerted force value. The variation in flatness of the test

surface from a flat surface is indicated by the difference between the exerted force value and the nominal force value.